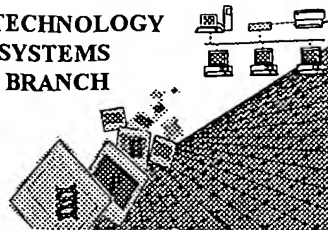


BIOTECHNOLOGY
SYSTEMS
BRANCH



5040

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/031,110
Source: Pt 1/10
Date Processed by STIC: 2/6/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER**
VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name,
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/031/10

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s). Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
(OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
(NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.
- 10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



PCT10

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/10/031,110

DATE: 02/06/2002
 TIME: 19:07:28

Input Set : A:\9882-013-999.txt
 Output Set: N:\CRF3\02062002\J031110.raw

Does Not Comply
 Corrected Diskette Needed

3 <110> APPLICANT: Stewart, A.
 4 Zhang, Y.
 5 Muyrers, J.
 7 <120> TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR DIRECTED CLONING AND
 8 SUBCLONING USING HOMOLOGOUS RECOMBINATION
 10 <130> FILE REFERENCE: 9882-013-999
 12 <140> CURRENT APPLICATION NUMBER: US/10/031,110
 13 <141> CURRENT FILING DATE: 2002-01-09

15 <160> NUMBER OF SEQ ID NOS: 14
 17 <170> SOFTWARE: PatentIn Ver. 2.1
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 84
 21 <212> TYPE: DNA
 22 <213> ORGANISM: Artificial Sequence
 24 <220> FEATURE:

25 <223> OTHER INFORMATION: Description of Artificial Sequence:

26 Oligonucleotide
 28 <400> SEQUENCE: 1

29 ttctctgtgta ttaaccgggg aatacagtgat aatcgataat tcagaggaat agctcgagtt 60
 30 aataagatga tttctgtgag atcg 84

33 <210> SEQ ID NO: 2
 34 <211> LENGTH: 83
 35 <212> TYPE: DNA
 36 <213> ORGANISM: Artificial Sequence
 38 <220> FEATURE:

39 <223> OTHER INFORMATION: Description of Artificial Sequence:

40 Oligonucleotide
 42 <400> SEQUENCE: 2

43 cagcaatgtc atcgagctga gacttactga taccgggacc cgcgtggtaa ttctcgagtg 60
 44 attagaaaaa ctcacgcagc atc 83

47 <210> SEQ ID NO: 3
 48 <211> LENGTH: 92
 49 <212> TYPE: DNA
 50 <213> ORGANISM: Artificial Sequence
 52 <220> FEATURE:

53 <223> OTHER INFORMATION: Description of Artificial Sequence:

54 Oligonucleotide
 56 <400> SEQUENCE: 3

57 tcaacattaa atgtgagcga gtaacaaccc gtcggattct ccgtgggaac aaacgggaat 60
 58 tctgattaga aaaactcatc gagcatcaaa tg 92

61 <210> SEQ ID NO: 4
 62 <211> LENGTH: 83
 63 <212> TYPE: DNA

(global error)

insufficient explanation - give source of genetic material -
 see item 11
 on Error
 Summary
 sheet

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/031,110

DATE: 02/06/2002

TIME: 19:07:28

Input Set : A:\9882-013-999.txt

Output Set: N:\CRF3\02062002\J031110.raw

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64 <213> ORGANISM: Artificial Sequence
66 <220> FEATURE:
67 <223> OTHER INFORMATION: Description of Artificial Sequence:
68   Oligonucleotide
70 <400> SEQUENCE: 4
71 tcaggggaaa accttattta tcagccggaa aacctaccgg attgatggta gggatcctta 60
72 ataagatgat cttcttgaga tcg                                     83
75 <210> SEQ ID NO: 5
76 <211> LENGTH: 92
77 <212> TYPE: DNA
78 <213> ORGANISM: Artificial Sequence
80 <220> FEATURE:
81 <223> OTHER INFORMATION: Description of Artificial Sequence:
82   Oligonucleotide
84 <400> SEQUENCE: 5
85 tcaacattaa atgtgagcga gtaacaaccc gtcggattct ccgtgggaac aaacgggaat 60
86 tctgattaga aaaactcatc gagcatcaaa tg                                     92
89 <210> SEQ ID NO: 6
90 <211> LENGTH: 83
91 <212> TYPE: DNA
92 <213> ORGANISM: Artificial Sequence
94 <220> FEATURE:
95 <223> OTHER INFORMATION: Description of Artificial Sequence:
96   Oligonucleotide
98 <400> SEQUENCE: 6
99 tcaggggaaa accttattta tcagccggaa aacctaccgg attgatggta gggatcctta 60
100 ataagatgat cttcttgaga tcg                                     83
103 <210> SEQ ID NO: 7
104 <211> LENGTH: 89
105 <212> TYPE: DNA
106 <213> ORGANISM: Artificial Sequence
108 <220> FEATURE:
109 <223> OTHER INFORMATION: Description of Artificial Sequence:
110   Oligonucleotide
112 <400> SEQUENCE: 7
113 tgcatttga tatcgaccca agtaccgcca cctaacaatt cgttcaagcc gaggatcctt 60
114 aataagatca tcttctgaga tcgttttgg                                     89
117 <210> SEQ ID NO: 8
118 <211> LENGTH: 90
119 <212> TYPE: DNA
120 <213> ORGANISM: Artificial Sequence
122 <220> FEATURE:
123 <223> OTHER INFORMATION: Description of Artificial Sequence:
124   Oligonucleotide
126 <400> SEQUENCE: 8
127 tgcattacag tttagaacc gaacaggctt atgtcaactg ggttcgtgcc ttcagaattc 60
128 tgattagaaa aactcatcga gcatcaaatg                                     90
131 <210> SEQ ID NO: 9
132 <211> LENGTH: 92

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/031,110

DATE: 02/06/2002

TIME: 19:07:28

Input Set : A:\9882-013-999.txt

Output Set: N:\CRF3\02062002\J031110.raw

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133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Description of Artificial Sequence:
138     Oligonucleotide
140 <400> SEQUENCE: 9
141 tcaacattaa atgtgagcga gtaacaaccc gtcggattct ccgtgggaac aaacgggaat 60
142 tctgattaga aaaactcatc gagcatcaaa tg                               92
145 <210> SEQ ID NO: 10
146 <211> LENGTH: 83
147 <212> TYPE: DNA
148 <213> ORGANISM: Artificial Sequence
150 <220> FEATURE:
151 <223> OTHER INFORMATION: Description of Artificial Sequence:
152     Oligonucleotide
154 <400> SEQUENCE: 10
155 tcaggggaaa accttattta tcagccggaa aacctaccgg attgatggta gggatcctta 60
156 ataagatgat cttcttgaga tcg                               83
159 <210> SEQ ID NO: 11
160 <211> LENGTH: 101
161 <212> TYPE: DNA
162 <213> ORGANISM: Artificial Sequence
164 <220> FEATURE:
165 <223> OTHER INFORMATION: Description of Artificial Sequence:
166     Oligonucleotide
168 <400> SEQUENCE: 11
169 tgtagctgag cccaggggca aggctgcttt gtaccagcct gctgtctgcg ggggcatcac 60
170 ctggaattct taataagatg atcttcttga gatcgttttg g                               101
173 <210> SEQ ID NO: 12
174 <211> LENGTH: 98
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence:
180     Oligonucleotide
182 <400> SEQUENCE: 12
183 tgggtgtcaa cctcaggctt tctcacacgc aatacaggtg gggacttgca cccctacaca 60
184 ccgaattctg attagaaaaa ctcatcgagc atcaaag                               98
187 <210> SEQ ID NO: 13
188 <211> LENGTH: 134
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Description of Artificial Sequence:
194     Oligonucleotide
196 <400> SEQUENCE: 13
197 tcttttactt tcaccagcgt ttctgggtga gcaaaaacag gaaggcaaaa tgccgcaaaa 60
198 aagggaataa gggcgacacg gaaatgttga atactcataa cacccttgt attactgttt 120
199 atgtaagcag acag                               134

```

RAW SEQUENCE LISTING

DATE: 02/06/2002

PATENT APPLICATION: US/10/031,110

TIME: 19:07:28

Input Set : A:\9882-013-999.txt

Output Set: N:\CRF3\02062002\J031110.raw

202 <210> SEQ ID NO: 14

203 <211> LENGTH: 134

204 <212> TYPE: DNA

205 <213> ORGANISM: Artificial Sequence

207 <220> FEATURE:

208 <223> OTHER INFORMATION: Description of Artificial Sequence:

209 Oligonucleotide

211 <400> ~~SEQUENCE: 14~~

212 tcccgtatcg tagttatcta cacgacgggg agtcaggcaa ctatggatga acgaaataga 60

213 cagatcgctg agataggtgc ctactgatt aagcattggt aattaataag atgatcttct 120

214 tgagatcggt ttgg 134

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/031,110

DATE: 02/06/2002

TIME: 19:07:30

Input Set : A:\9882-013-999.txt

Output Set: N:\CRF3\02062002\J031110.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application Number

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date